

Claims

Claim 1. (Currently Amended) A method of operating an oscilloscope that is capable of displaying simultaneously multiple waveforms representing time evolution of a signal during respective acquisition intervals, comprising:

- (a) acquiring waveform data using a first set of acquisition parameters,
- (b) generating a display based on the waveform data acquired in step (a),
in the event that the display generated in step (b) includes a waveform that is visually distinct from other displayed waveforms,
- (c) selecting a feature within the displayed waveforms that distinguishes the visually distinct waveform from other displayed waveforms,
- (d) automatically deriving a second set of acquisition parameters that discriminate between the selected feature and other features of the displayed waveforms,
- (e) acquiring waveform data using the second set of acquisition parameters derived in step (d), and
- (f) generating a display based on the waveform data acquired in step (e).

Claim 2. (Currently Amended) A method according to claim 1, wherein step (c) includes graphically defining a template that specifies the selected feature and step (d) includes employing information regarding the template to derive said ~~additional~~ second set of acquisition parameters.

Claim 3. (Original) A method according to claim 1, wherein the oscilloscope has multiple trigger modes, step (c) includes graphically defining a template that specifies the selected feature and step (d) includes employing information regarding the template to select a trigger mode for preferentially acquiring waveforms that include the selected feature.

Claim 4. (Currently Amended) A method according to claim 3, wherein the template is a ~~scaleable~~ scalable rectangular box and step (c) includes positioning and sizing the box so that it contains the selected feature.

Claim 5. (Original) A method according to claim 2, wherein the oscilloscope has a display screen on which the waveforms are displayed and the template is a sketch generated on the display screen.

Claim 6. (Currently Amended) An oscilloscope that is capable of displaying simultaneously multiple waveforms representing time evolution of a signal during respective acquisition intervals, said oscilloscope comprising:

- an acquisition means for acquiring waveform data using a first set of acquisition parameters,

- a display means for generating a display based on the waveform data acquired by the acquisition means,

- a user control means that can be used in the event that the display generated by the display means includes a waveform that is visually distinct from other displayed waveforms to select a feature within the displayed waveforms that distinguishes the visually distinct waveform from other displayed waveforms, and

- an oscilloscope control means for automatically deriving a second set of acquisition parameters that discriminate between the selected feature and other features of the displayed waveforms, and for supplying the ~~derived~~ second set of acquisition parameters to the acquisition means, whereby the acquisition means can acquire waveform data using the ~~derived~~ second set of acquisition parameters and the display means can generate a display based on the waveform data acquired by the acquisition means using the ~~derived~~ second set of acquisition parameters.